

Technical University of Denmark



Coastal Hazards and Integration of Impacts on Local Adaptation Planning

Sørensen, Carlo Sass; Knudsen, Per; Andersen, Ole Baltazar

Publication date:
2017

Document Version
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

Citation (APA):

Sørensen, C. S., Knudsen, P., & Andersen, O. B. (2017). Coastal Hazards and Integration of Impacts on Local Adaptation Planning. Abstract from International WCRP/IOC Conference 2017: Regional Sea Level Changes and Coastal Impacts, New York, United States.

DTU Library

Technical Information Center of Denmark

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

POSTER SESSION
Session 5: Coastal zone

Paper ID 310
Poster Board N°35

Coastal Hazards and Integration of Impacts on Local Adaptation Planning

Sørensen, Carlo; Knudsen, Per; Andersen, Ole Baltazar

DTU Space, Elektrovej 327, 2800 Kgs Lyngby, Denmark

E-Mail: pk@space.dtu.dk

Data on sea and groundwater levels, sea level, precipitation, land subsidence, geology, and geotechnical soil properties are combined with information on flood and erosion protection measures to analyze water-related impacts from climate change at an exposed coastal location. Future sea extremes will have a large impact but several coupled effects in the hydrological system need to be considered as well to provide for optimal protection and mitigation efforts. For instance, the investment and maintenance costs of securing functional water and wastewater pipes are significantly reduced by incorporating knowledge about climate change. The translation of regional sea level rise evidence and projections to concrete impact measures should take into account the potentially affected stakeholders who must collaborate on common and shared adaptation solutions. Here, knowledge integration across levels of governance and between research, private and public institutions, and the local communities provides: understanding of the immediate and potential future challenges; appreciation of different stakeholder motives, business agendas, legislative constraints etc., and a common focus on how to cost-efficiently adapt to and manage impacts of climate change. By construction of a common working platform that is updated with additional data and knowledge, e.g. from future regional models or extreme events, advances in sea level research can more readily be translated into concrete and local impact measures in a way that handles uncertainties in the future climate and urban development as well as suiting the varying stakeholder needs.

Keywords: coastal adaptation, sea level, integrated approach